

RCGE1 Series

10/100/1000Base-T to 1000Base-Sx/Lx Media converter

The Rancent RC-GE1 media converter series are one-channel Ethernet electrical to optical media converters. These devices accept a 10/100/1000 Mbps electrical input and convert this to a 1000 Mbps optical output. This series of media converters use multimode and singlemode optical fiber and one and two fiber SC and ST optical connectors. LED indicators on the devices confirm operational status. All these models are environmentally hardened with no electrical or optical adjustments (Plug and Play). The units are powered by an included DC power supply.



Typical Applications

- Any network utilizing a mix of copper and fiber
- Industrial IP connectivity and communication
- Gigabit backbone networks
- Networks using Ethernet devices such as network cameras, access control, intercoms, etc

Product Features

- 1-Port 10/100/1000Base-T Fast Ethernet RJ-45 Port
- 1-Port 1000Base-Sx/Lx Optical Port
- Complies with the IEEE 802.3 standard
- RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto-MDI/MDIX
- Prevents Packet Loss w/Back Pressure (Half-Duplex) and IEEE 802.3x PAUSE Frame Flow Control (Full-Duplex)
- Available for ST or SC fiber connector
- Available for operation over singlemode or multimode fiber over a variety of link budget
- Available for operation over 1 or 2 fibers
- No in-field optical adjustment required

Specifications

Physical Ports

Copper Ports (RJ45)	1 x 10/100/1000Base-T
Optical Ports	1 x 1000Base-Sx/Lx
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate

Ethernet

Switch Architecture	Store-and-forward
Forward Filter Rate	148,800pps (1000Mbps)
Flow Control	Back pressure(Half-Duplex); IEEE 802.3x Pause Frame (Full-Duplex)

Optical

Wavelength	1310/1550nm 1550/1310nm
Multimode	2KM
Singlemode	20KM
Optical Emitter	Laser Diode
Number of Fibers	1/2
Connector	ST or SC

LED Indicators & Switch

Power	On/Green
Ethernet	Link/Activity - Green
Optical	On/Blink - Green

Electrical and Mechanical

Power Supply	5V 1A
Power Consumption	<2.5W
Dimensions	93 x 70 x 25mm

Environmental

MTBF	>100,000 hours
Operating Temperature	0°C~+55°C
Storage Temperature -	-40°C~+70°C
Relative Humidity	0%~95% (non-condensing)

Standards Compliance

Regulatory Standards	CE; FCC Part 15 Class A IEEE 802.3i 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-TX
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Ordering Information

Part Number	Description	Connector	Cable	Fiber	Maximum Distance
RCGE1-TM1A	10/100/1000 Mbps 1310/1550nm	ST	MM	1	2KM
RCGE1-TM1B	10/100/1000 Mbps 1550/1310nm	ST	MM	1	2KM
RCGE1-TS1A	10/100/1000 Mbps 1310/1550nm	ST	SM	1	20KM
RCGE1-TS1B	10/100/1000 Mbps 1550/1310nm	ST	SM	1	20KM
RCGE1-CM1A	10/100/1000 Mbps 1310/1550nm	SC	MM	1	2KM
RCGE1-CM1B	10/100/1000 Mbps 1550/1310nm	SC	MM	1	2KM
RCGE1-CS1A	10/100/1000 Mbps 1310/1550nm	SC	SM	1	20KM
RCGE1-CS1B	10/100/1000 Mbps 1550/1310nm	SC	SM	1	20KM
RCGE1-TM2	10/100/1000 Mbps 1310nm	ST	MM	2	2KM
RCGE1-TS2	10/100/1000 Mbps 1310nm	ST	SM	2	20KM
RCGE1-CM2	10/100/1000 Mbps 1310nm	SC	MM	2	2KM
RCGE1-CS2	10/100/1000 Mbps 1310nm	SC	SM	2	20KM

*Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.